

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-8. (Cancelled)

9. (Currently Amended) A method of treating stimulating the perfusion of ischemic tissues, comprising administering activated Factor XIII and thereby stimulating the perfusion of ischemic tissues.

10. (Previously Presented) The method of claim 9, wherein the Factor XIII is administered by topical administration.

11. (Previously Presented) The method of claim 9, wherein the Factor XIII is activated *in vitro* or *in vivo*.

12. (Previously Presented) The method of claim 11, wherein the Factor XIII is administered by injection.

13. (Previously Presented) The method of claim 11, wherein the Factor XIII is administered by topical application.

14. (Currently Amended) A method of treating stimulating the perfusion of ischemic tissues by the proliferation of new blood vessels, comprising administering activated Factor XIII and thereby stimulating the proliferation of new blood vessels in ischemic tissues.

15. (Previously Presented) The method of claim 14, wherein the Factor XIII is administered by topical application.

16. (Previously Presented) The method of claim 14, wherein the Factor XIII is activated *in vitro* or *in vivo*.

17. (Previously Presented) The method of claim 16, wherein the Factor XIII is administered by injection.

18. (Previously Presented) The method of claim 16, wherein the Factor XIII is administered by topical application.

19. (Previously Presented) The method of claim 12, wherein the Factor XIII is administered to treat a myocardial infarction.

20. (Previously Presented) The method of claim 17, wherein the Factor XIII is administered to treat a myocardial infarction.

21. (Previously Presented) The method of claim 12, wherein the Factor XIII is administered to treat an ischemic stroke or transient ischemic attack.

22. (Previously Presented) The method of claim 17, wherein the Factor XIII is administered to treat an ischemic stroke or transient ischemic attack.

23. (Previously Presented) The method of claim 12, wherein the Factor XIII is administered to treat vascular or veno-occlusive diseases or obstructions of the microcirculation.

24. (Previously Presented) The method of claim 17, wherein the Factor XIII is administered to treat vascular or veno-occlusive diseases or obstructions of the microcirculation.